

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1 1. (Currently amended) A method comprising:
2 serially receiving, from a source, a plurality of forward messages each addressed
3 to a corresponding destination among a plurality of destinations;
4 storing each forward message before attempting to send the forward message to
5 its corresponding destination;
6 for each stored forward message, receiving an ~~plurality of~~ availability signals;
7 ~~each availability signal~~ indicating that whether its corresponding destination is available to
8 accept one of the destinations is available to accept its corresponding the stored forward message
9 before attempting to send the stored forward message to its corresponding destination;
10 for first stored forward messages whose corresponding first destinations are
11 available, simultaneously sending the first stored forward messages to their corresponding first
12 destinations, wherein a stored forward message is sent only to its corresponding destination and
13 not until after receiving an availability signal indicating that the destination is available;
14 subsequent to ~~receiving~~ sending the first stored forward messages, simultaneously
15 receiving, after a predetermined period of time, a plurality of reverse messages from the first
16 destinations, each reverse message corresponding to one of the first stored forward messages;
17 and
18 serially sending the reverse messages to the source.

1 2. (Currently amended) The method of claim 1, wherein the source identifies
2 each of the forward messages by a different tag, further comprising:
3 placing a tag in a delay buffer when sending to a destination the forward message
4 identified by that tag, wherein the delay buffer implements a delay equal to the predetermined

5 period of time such that the tag is available when receiving from the destination ~~memory~~ the
6 reverse message corresponding to the forward message; and
7 sending the tag to the source with the reverse message, whereby the source
8 associates the reverse message with the forward message.

1 3. (Original) The method of claim 1, further comprising:
2 associating a priority with each forward message; and
3 sending a forward message to a destination when that forward message has a
4 higher priority than other forward messages addressed to that destination.

1 4. (Original) The method of claim 3, wherein the priority of each forward
2 message represents an age of that forward message.

1 5. (Previously presented) The method of claim 1, further comprising:
2 associated a priority with each reverse message; and
3 sending a reverse message to the source when that reverse message has a higher
4 priority than other reverse messages.

1 6. (Original) The method of claim 5, wherein the priority of each reverse
2 message represents an age of that reverse message.

1 7. (Original) The method of claim 1, wherein each destination is a memory
2 bank, each forward message is a memory transaction, and each reverse message is the result of
3 one of the memory transaction.

1 8. (Currently amended) An apparatus comprising:
2 means for serially receiving, from a source, a plurality of forward messages each
3 addressed to a corresponding destination among a plurality of destinations;
4 means for storing each forward message before attempting to send the forward
5 message to its corresponding destination;

6 means for receiving an ~~plurality of~~ availability signals; for each stored forward
7 message each availability signal indicating that one of the whether its corresponding destinations
8 is available to accept the stored forward message before attempting to send the stored forward
9 message to its corresponding destination~~its corresponding forward message;~~

10 means for simultaneously sending first stored forward messages to their
11 corresponding first destinations, wherein a stored forward message is sent only to its
12 corresponding destination and not until after receiving an availability signal indicating that the
13 destination is available~~wherein the first destinations are determined to be available based on the~~
14 ~~availability signals;~~

15 means for simultaneously receiving, after a predetermined period of time, a
16 plurality of reverse messages from the first destinations, each reverse message corresponding to
17 one of the first stored forward messages; and

18 means for serially sending the reverse messages to the source.

1 9. (Currently amended) The apparatus of claim 8, wherein the source
2 identifies each of the forward messages by a different tag, further comprising:

3 means for placing a tag in a delay buffer when sending to a destination the
4 forward message identified by that tag, where the delay buffer implements a delay equal to the
5 predetermined period of time such that the tag is available when receiving from ~~memory~~ the
6 destination the reverse message corresponding to the forward message; and

7 means for sending the tag to the source with the reverse message, whereby the
8 source associates the reverse message with the forward message.

1 10. (Original) The apparatus of claim 8, further comprising:

2 means for associating a priority with each forward message; and

3 means for sending a forward message to a destination when that forward message
4 has a higher priority than other forward messages addressed to that destination.

1 11. (Original) The apparatus of claim 10, wherein the priority of each forward
2 message represents an age of that forward message.

1 12. (Previously presented) The apparatus of claim 8, further comprising:
2 means for associated a priority with each reverse message; and
3 means for sending a reverse message to the source when that reverse message has
4 a higher priority than other reverse messages.

1 13. (Original) The apparatus of claim 12, wherein the priority of each reverse
2 message represents an age of that reverse message.

1 14. (Original) The apparatus of claim 8, wherein each destination is a
2 memory bank, each forward message is a memory transaction, and each reverse message is the
3 result of one of the memory transactions.

1 15. (Currently amended) A computer program product, tangibly stored on a
2 computer-readable medium, comprising instructions operable to cause a programmable processor
3 to:

4 serially receive, from a source, a plurality of forward messages each addressed to
5 a corresponding destination among a plurality of destinations;

6 store each forward message before attempting to send the forward message to its
7 corresponding destination;

8 receive an plurality of availability signals for each stored forward message, each
9 availability signal indicating that one of the whether its corresponding destinations is available to
10 accept its corresponding the stored forward message before attempting to send the stored forward
11 message to its corresponding destination;

12 for first stored forward messages whose corresponding first destinations are
13 available, simultaneously send the first stored forward messages to their corresponding first

14 destinations, wherein a stored forward message is sent only to its corresponding destination and
15 not until after receiving an availability signal indicating that the destination is available;
16 simultaneously receive, after a predetermined period of time, a plurality of reverse
17 messages from the first destinations, each reverse message corresponding to one of the first
18 stored forward messages; and
19 serially send the reverse messages to the source.

1 16. (Currently amended) The computer program product of claim 15, wherein
2 the source identifies each of the forward messages by a different tag, further comprising
3 instructions operable to cause a programmable processor to:
4 place a tag in a delay buffer when sending to a destination the forward message
5 identified by that tag, wherein the delay buffer implements a delay equal to the predetermined
6 period of time such that the tag is available when receiving from ~~memory~~ the destination the
7 reverse message corresponding to the forward message; and
8 send the tag to the source with the reverse message, whereby the source associates
9 the reverse message with the forward message.

1 17. (Original) The computer program product of claim 15, further comprising
2 instructions operable to cause a programmable processor to:
3 associate a priority with each forward message; and
4 send a forward message to a destination when that forward message has a higher
5 priority than other forward messages addressed to that destination.

1 18. (Original) The computer program product of claim 17, wherein the
2 priority of each forward message represents an age of that forward message.

1 19. (Previously presented) The computer program product of claim 15,
2 further comprising instructions operable to cause a programmable processor to:
3 associate a priority with each reverse message; and

4 send a reverse message to the source when that reverse message has a higher
5 priority than other reverse messages.

6 20. (Original) The computer program product of claim 19, wherein the
7 priority of each reverse message represents an age of that reverse message.

8 21. (Original) The computer program product of claim 15, wherein each
9 destination is a memory bank, each forward message is a memory transaction, and each reverse
10 message is the result of one of the memory transactions.